

Attorney Docket No. P06553-US2
Customer Number 27045

REMARKS/ARGUMENTS

1.) Claim Amendments

Claim 5 is pending in the application. The Applicant has amended claim 5. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Claim Rejections – 35 U.S.C. § 103(a)

In paragraphs 6-7 of the Final Office Action, the Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Tan (US 4,502,137) and further in view of Kage (US 4,791,669). The Applicant has amended claim 5 to better distinguish the claimed invention from Tan and Kage. The Examiner's consideration of amended claim 5 is respectfully requested.

Tan was cited because it discloses transmitting data using time division multiplexing.

The Applicant's understanding of Kage is that Kage employs a cipher feedback system, enhanced by dividing the stream to be encrypted into frames. Kage then uses an encryption function, which is related to a state depending on the ordinal number of the frame. In FIG. 1, Kage has a counter for determining this state. Within the frames, the ciphering is performed according to the standard principles of a cipher operating in cipher feedback mode. There is no disclosure or suggestion, however, of dividing the frames into several slots. This is because Kage's cipher feedback methodology encrypts data in a way that is entirely different from, and incompatible with, the way it is done in the claimed invention.

In Kage, the encryption in different frames is dependent on the encryption in other frames. Note that register 12 contains already encrypted information and is not reset between frames. Thus the content in Kage's register 12 links encryption between frames. Kage's use of cipher feedback with dependency between frames would, even with frames interpreted as time slots, be a most awkward and troublesome implementation of a cryptosystem for TDMA. Thus, a person skilled in the art would not

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use the Kage method in a TDMA system. Additionally, in a TDMA system, the time slots may belong to different users, and thus each time slot should be encrypted using a designated key for each particular user. The use of Kage's cipher feedback is totally incompatible in this environment.

Claim 5 has been amended to recite that step c) includes performing an EXOR operation between the modified pseudo-random sequence and each block of non-encrypted information. Thus, the encrypted stream is independent of the plaintext. Therefore, the procedure produces no error propagation, which is essential in a cryptosystem for TDMA. This feature is not taught or suggested by Kage.

For all the above reasons, the withdrawal of the rejection under § 103 and the allowance of amended claim 5 are respectfully requested.

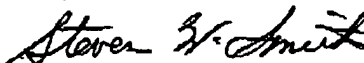
CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw the rejection and issue a Notice of Allowance for claim 5.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

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Respectfully submitted,



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